

SEQUENCE LISTING

<110> DiCICCO-BLOOM, Emanuel
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LU, Nairu
SUH, Junghyup

<120> Pituitary adenylate cyclase-activating polypeptide (PACAP) is
an anti-mitogenic signal for selected neuronal precursors in vivo

<130> 270/175

<140> not yet assigned
<141> 2002-01-11

<160> 8

<170> PatentIn version 3.1

<210> 1 - PACAP
<211> 114
<212> DNA
<213> Homo sapiens

<400> 1
cactcgacg ggatcttacg ggacagctac agccgctacc ggaaacaaat ggctgtcaag 60
aaataacttgg cggccgtcct aggaaagagg tataaacaaa gggtaaaaaa caaa 114

<210> 2 - PACAP
<211> 38
<212> PRT
<213> Homo sapiens

<400> 2

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu Gly Lys Arg Tyr Lys
20 25 30

Gln Arg Val Lys Asn Lys
35

<210> 3 - PAC, Receptor
<211> 525
<212> PRT

<213> Homo sapiens

<400> 3

Met Ala Gly Val Val His Val Ser Leu Ala Ala His Cys Gly Ala Cys
1 5 10 15

Pro Trp Gly Arg Gly Arg Leu Arg Lys Gly Arg Ala Ala Cys Lys Ser
20 25 30

Ala Ala Gln Arg His Ile Gly Ala Asp Leu Pro Leu Leu Ser Val Gly
35 40 45

Gly Gln Trp Cys Trp Pro Arg Ser Val Met Ala Gly Val Val His Val
50 55 60

Ser Leu Ala Ala Leu Leu Leu Pro Met Ala Pro Ala Met His Ser
65 70 75 80

Asp Cys Ile Phe Lys Lys Glu Gln Ala Met Cys Leu Glu Lys Ile Gln
85 90 95

Arg Ala Asn Glu Leu Met Gly Phe Asn Asp Ser Ser Pro Gly Cys Pro
100 105 110

Gly Met Trp Asp Asn Ile Thr Cys Trp Lys Pro Ala His Val Gly Glu
115 120 125

Met Val Leu Val Ser Cys Pro Glu Leu Phe Arg Ile Phe Asn Pro Asp
130 135 140

Gln Val Trp Glu Thr Glu Thr Ile Gly Glu Ser Asp Phe Gly Asp Ser
145 150 155 160

Asn Ser Leu Asp Leu Ser Asp Met Gly Val Val Ser Arg Asn Cys Thr
165 170 175

Glu Asp Gly Trp Ser Glu Pro Phe Pro His Tyr Phe Asp Ala Cys Gly
180 185 190

Phe Asp Glu Tyr Glu Ser Glu Thr Gly Asp Gln Asp Tyr Tyr Tyr Leu
195 200 205

Ser Val Lys Ala Leu Tyr Thr Val Gly Tyr Ser Thr Ser Leu Val Thr
210 215 220

Leu Thr Thr Ala Met Val Ile Leu Cys Arg Phe Arg Lys Leu His Cys
225 230 235 240

Thr Arg Asn Phe Ile His Met Asn Leu Phe Val Ser Phe Met Leu Arg
245 250 255

Ala Ile Ser Val Phe Ile Lys Asp Trp Ile Leu Tyr Ala Glu Gln Asp
260 265 270

Ser Asn His Cys Phe Ile Ser Thr Val Glu Cys Lys Ala Val Met Val
275 280 285

Phe Phe His Tyr Cys Val Val Ser Asn Tyr Phe Trp Leu Phe Ile Glu
290 295 300

Gly Leu Tyr Leu Phe Thr Leu Leu Val Glu Thr Phe Phe Pro Glu Arg
305 310 315 320

Arg Tyr Phe Tyr Trp Tyr Thr Ile Ile Gly Trp Gly Thr Pro Thr Val
325 330 335

Cys Val Thr Val Trp Ala Thr Leu Arg Leu Tyr Phe Asp Asp Thr Gly
340 345 350

Cys Trp Asp Met Asn Asp Ser Thr Ala Leu Trp Trp Val Ile Lys Gly
355 360 365

Pro Val Val Gly Ser Ile Met Val Asn Phe Val Leu Phe Ile Gly Ile
370 375 380

Ile Val Ile Leu Val Gln Lys Leu Gln Ser Pro Asp Met Gly Gly Asn
385 390 395 400

Glu Ser Ser Ile Tyr Leu Arg Leu Ala Arg Ser Thr Leu Leu Leu Ile
 405 410 415

Pro Leu Phe Gly Ile His Tyr Thr Val Phe Ala Phe Ser Pro Glu Asn
 420 425 430

Val Ser Lys Arg Glu Arg Leu Val Phe Glu Leu Gly Leu Gly Ser Phe
 435 440 445

Gln Gly Phe Val Val Ala Val Leu Tyr Cys Phe Leu Asn Gly Glu Val
 450 455 460

Gln Ala Glu Ile Lys Arg Lys Trp Arg Ser Trp Lys Val Asn Arg Tyr
 465 470 475 480

Phe Ala Val Asp Phe Lys His Arg His Pro Ser Leu Ala Ser Ser Gly
 485 490 495

Val Asn Gly Gly Thr Gln Leu Ser Ile Leu Ser Lys Ser Ser Ser Gln
 500 505 510

Ile Arg Met Ser Gly Leu Pro Ala Asp Asn Leu Ala Thr
 515 520 525

<210> 4 - PACAP 6-38

<211> 33

<212> PRT

<213> Artificial sequence

<220>

<223> PACAP with first 5 amino acids truncated

<400> 4

Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln Met Ala Val Lys Lys
 1 5 10 15

Tyr Leu Ala Ala Val Leu Gly Lys Arg Tyr Lys Gln Arg Val Lys Asn
 20 25 30

Lys

<210> 5 - Max.d.5
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> Sand fly - truncation of SEQ.ID.NO.6 Maxadilan

<400> 5

Cys Asp Ala Thr Cys Gln Phe Arg Lys Ala Ile Asp Asp Cys Gln Lys
1 5 10 15

Gln Ala His His Ser Asn Val Pro Gly Asn Ser Val Phe Lys Glu Cys
20 25 30

Met Lys Gln Lys Lys Glu Phe Lys Ala Gly Lys
35 40

<210> 6 - Maxidilan
<211> 61
<212> PRT
<213> Sand fly

<400> 6

Cys Asp Ala Thr Cys Gln Phe Arg Lys Ala Ile Asp Asp Cys Gln Lys
1 5 10 15

Gln Ala His His Ser Asn Val Leu Gln Thr Ser Val Gln Thr Thr Ala
20 25 30

Thr Phe Thr Ser Met Asp Thr Ser Gln Leu Pro Gly Asn Ser Val Phe
35 40 45

Lys Glu Cys Met Lys Gln Lys Lys Glu Phe Lys Ala
50 55 60

<210> 7 - PACAP 27
<211> 27
<212> PRT
<213> Homo sapiens

<400> 7

His Ser Asp Gly Ile Phe Thr Asp Ser Tyr Ser Arg Tyr Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Ala Ala Val Leu
20 25

<210> 8 - VIP

<211> 28

<212> PRT

<213> Homo sapiens

<400> 8

His Ser Asp Ala Val Phe Thr Asp Asn Tyr Thr Arg Leu Arg Lys Gln
1 5 10 15

Met Ala Val Lys Lys Tyr Leu Asn Ser Ile Leu Asn
20 25